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Norman Kwan,
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18 October 2018
Ref: SS/Let/P1387

Dear Norman,

We are writing to you in response to questions posed at the Storrington, Sullington and Washington Neighbourhood Plan Examination predominantly with regards to contaminated land matters at Angell Sandpit. We would appreciate it if this letter could be made available to the Examiner.

The Examiner requested details of the conditions related to the restoration of the site. We note that a report by Hemsley Consulting has been uploaded to Horsham District Council's website which sought the amendment of conditions related to Planning Application reference SG/18/99 and SG/509/04. This submission and suggested condition amendment was approved under planning application reference DC/227/08 (SG).

It was clear from the site visit that woodland, gorse, heather and acid grasses are present on site. It is our view therefore that the restoration of the site is complete and the condition complied with. We note there is no evidence submitted by either Horsham District Council or West Sussex County Council to the contrary nor indeed are we aware of any action undertaken by either party regarding non-compliance. . We do not therefore consider this an issue that would prevent the site to be allocated within the Neighbourhood Plan.

The Examiner also requested that the Council's Environmental Health Officer review the Desk Study Report submitted as part of the Position Statement prepared by ECE Planning. The Council was requested specifically to provide a view as to whether the site **could** be developed given historic land uses (i.e. is the site deliverable).

The Desk Study Report supporting the allocation (which is based on intrusive investigations carried out in 2010) states:

> *It is concluded that there is a potential for contamination to exist at the site due to its recent and historic uses and that this could influence the proposed development. Whilst the individual risk ratings for the potential pollutant linkages identified ranged from moderate to very low, it is considered that further assessment is required to better characterise contamination on site as a result of current and historic land uses and the associated risk to identified receptors. Subject to the findings of any further assessment on the site (i.e. additional ground investigation*

works), it is likely that appropriate mitigation measures may be required on the site as part of any redevelopment. As a minimum a clean cap and topsoil (minimum thickness of 600mm) would need to be imported onto the site as a precautionary measure in line with the previous development on Angel Sands to ensure that there is a limited ability for future residents to come into contact with the underlying Made Ground materials.

Our position remains that there is a technical solution to contaminated land matters in line with the evidence submitted. Clearly further work is required through monitoring and intrusive investigations to understand the precise nature of contamination.

On this point, the Council's response does not discount development on the site. It merely raises the concerns with regards to site viability of measures that may (or may not) be needed to make development acceptable. This is an entirely separate matter.

The level of detail provided (that of a desk based report based on actual intrusive records) is in our view a proportionate level of evidence to support the allocation and provides sufficient comfort to the Examiner that the site can be developed and should therefore be allocated within the Neighbourhood Plan.

As set out previously, the site is being promoted for six dwellings, one of which will be inhabited by the site owner. In this regard, matters related to land value are academic since the benefit of scheme is delivery of a new home to the land owner.

Furthermore, the abnormal costs associated with the site have been accounted for by the owner who was involved with the development of the site to the south at Angell Sands (and continues to own the access and two plots on that development). Please refer also to the supporting letter on site viability appended to this letter produced by the Chartered Planning and Development Surveyor engaged by the site owner.

In our view it is not the position of the Environmental Health Officer to be concerned about matters of overall site viability since that is not determined solely by construction costs alone. The question posed by the Examiner was that of deliverability, i.e. is there a technical solution. The Council has noted that there will be technical challenges to overcome and we do not disagree with this. The Council did not state in its response however that the site is not developable or deliverable.

The Council also infers that further evidence would be required prior to planning permission being granted as such matters could not be conditioned. We agree with this and further evidence would follow in due course and as part of a future planning application.

Contaminated Land consultants appointed by the site promoters have addressed the individual points raised by the Environmental Health Officer below in support of the site.

Landfill Gas

The Local Authority has commented that the adjacent site (Angell Sands) was permitted as there is an unquarried 'out crop of natural geology' between this site which would limit gas migration if present. The image provided by the Council demonstrates this statement to be untrue since the 'outcrop' was quarried and infilled. Whilst there is a shallower area of infilled materials with a lip of natural geology, it is not a complete wedge separating the two sites as has been stated. As such it is considered that where flow is present this would not completely limit migration from the site to the north, to the site to the south. In addition, the site is located on Sandstone of the Folkestone Formation which is permeable strata.

The image provided by the Council is also misleading in that it suggests the entire Angell Sandpit site was excavated. This is not the case. An area to the west of the site was unquarried or quarried to a much shallower depth than that suggested by the Council. This is a consideration in terms of both land gas and indeed piling (discussed below).

It should be noted that whilst the site has been reported from previous investigation works as being infilled with clayey soils the boreholes drilled through the deeper infilled area of the site did not report any specific engineered lining element to the filled area which could act as a barrier for vertical or lateral migration of ground gases. Whilst is it noted that the flow rates recorded on the site are low, it is considered that potential migration pathways to neighbouring land could exist.

The site is surrounded on two sides by residential properties which are located down topographical gradient of the site, it is considered that any development of the site could be designed to incorporate measures which would also serve to offer further protection to neighbouring properties associated with any potential for land gases to be present and/or migrating.

The Examiner will also have noted that part of the residential garden of Chestnut Cottages was part of the quarried sandpit and was transferred to the current occupiers some time ago after the quarry ceased production. One of the methane gas monitoring wells is situated within the garden of Chestnut Cottage as noted on the site visit.

Previous development was allowed on the adjacent landfill area with gas protection measures designed to CS3/Amber 2 on the site with the provision that the site remains substantially free from hard-standing, and is able to 'breath', with the risk of off-site land gas migration considered to be acceptably low and as such did not warrant any specific mitigation. Any development on this wider site would be developed in the same manner to allow for the site to continue to 'breath'.

During the site walkover as part of the updated desk study report it was noted that the site was very heavily vegetated in parts and there was no evidence of vegetation die back or distress as a result of ground gases on the site.

The client is fully aware that a further period of monitoring is required and that if necessary is prepared to design structures to allow for passive and active systems if required to mitigate any risk. There is obviously a cost

element to this, but the design of the site could look to incorporate a gas venting layer or areas, as part of the development, that channels any gas away from the properties if land gases prove to be an issue in order to achieve the protective scoring required by the British Standards. As such it is considered that there are options for a combination of the level and type of protection measures that could be installed if required to address the risk from the site subject to outcome of the further monitoring.

Piled Foundation

In terms of foundations on the site, a piled option is likely to be required. There are a variety of piling options which are used on sites where contamination and land gases have been identified that have been successfully utilised to minimise the creation of preferential pathways, such as cast in-situ displacement piles which limit downward migration of material by utilising a shoe on the pile which results in horizontal displacement/compaction of the material rather than vertical mobilisation.
Cast in-situ piles can also mitigate the risk of long term gas migration pathways to be created, by blocking the pathway.

Again we agree with the Council that further work is required with regards to these matters but this would reasonably be carried prior to the planning application stage.

With respect to mitigation measures for plots near or on unquarried land these could be less onerous than for those on the fill material however it is not possible to determine this without intrusive investigation works on the site to assess the extent of the fill material, surrounding geotechnical ground conditions and the level of current ground gases on the site. However unquarried areas may provide beneficial for looking at drainage options.

Drainage

In terms of drainage, the Local Authority have raised that the discharge of water cannot occur within the fill material, due to mobilisation of contaminants and the potential for differential settlement that may occur as a result if/where voids are present within the fill material.

The site promoters have engaged a consultant to undertake a drainage strategy for the site. Consultants state the following with regards to drainage:

> *An initial site investigation has indicated that the underlying geology is likely to be conducive to infiltration techniques, therefore the preferred discharge method outlined in the Building Regulations can be utilised for discharging the surface water run-off generated by the developed site.*
>
> *It has been assumed that a combination of permeable pavements and borehole soakaways will be used in the rear gardens and borehole soakaways in the roads will dispose of the surface water. The borehole soakaways would generally be based on a 1.8 diameter x 2..0m deep head chamber with a sleeved bore down to the natural sandstone at the base of the former quarry, the permeable pavements would be lined.*

The sleeved borehole and lined permeable pavements systems proposed are included specifically to address the potential for contamination identified, in order to minimise the risk to controlled waters from discharge on the site.

Conclusion

In summary, the Local Authority has not objected to the site allocation for housing, however clearly further work will be required which the land owners entirely accept.

The Council's response clearly does not rule out development of the site. It merely notes concern with regards to viability of implementing mitigation measures and that such matters could not be dealt with by way of planning conditions attached to a planning permission.

We agree, however, as stated previously, the NPPF is clear at paragraph 32 that plans must be based on proportionate evidence. We feel that such evidence is before the Examiner and provides sufficient detail to enable the allocation of the site.

It is our view that the site is both developable and viable and see no reason why the allocation cannot be included within the Neighbourhood Plan. We would reiterate that the mitigation / design matters considered within this letter have been accounted for with the owner's viability considerations for delivery of the site.

We trust this addresses the matters raised however should you require further information please contact me.

Yours sincerely

Sam Sykes **MRTPI**
Associate Planner
Encs.